

t15_complex2

(TMJGmPfkY8vdW5vyt4EMbaiEEjEZWb41DBn)

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Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k1_comptrig : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k17_complex1 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k21_sin_cos : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k18_sin_cos : \iota \Rightarrow \iota$ be given. Let $k20_sin_cos : \iota \Rightarrow \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $k17_sin_cos : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_complex1 : \iota$ be given. Let $k16_complex1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (r1_xxreal_0 k6_numbers (k17_complex1 X0)) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow ((k21_sin_cos k6_numbers = np_1) \wedge ((k18_sin_cos k6_numbers = k6_numbers) \wedge ((k20_sin_cos (k4_xcmplx_0 X0) = k20_sin_cos X0) \wedge (k17_sin_cos (k4_xcmplx_0 X0) = k4_xcmplx_0 (k17_sin_cos X0)))))) \quad (2)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow ((r1_xxreal_0 k6_numbers X0) \Rightarrow (k1_comptrig X0 = k6_numbers)) \quad (3)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (X0 = k2_xcmplx_0 (k8_real_1 (k17_complex1 X0) (k21_sin_cos (k1_comptrig X0))) (k3_xcmplx_0 (k8_real_1 (k17_complex1 X0) (k18_sin_cos (k1_comptrig X0))) k7_complex1)) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k17_complex1 (k17_complex1 X0) = k17_complex1 X0) \quad (5)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (m1_subset_1 (k17_complex1 X0) k1_numbers) \quad (6)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (v1_xreal_0 (k16_complex1 X0)) \quad (7)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xcmplx_0 X0) \quad (8)$$

Theorem 1

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow ((k1_comptrig X0 = k6_numbers) \Leftrightarrow (X0 = k17_complex1 X0))$$